

**PATENT**

Atty Docket No. 5528

Express Mail Label No. LL759818010US

What is claimed is:

1. A kit for determining feline blood type, comprising:

(a) a substrate member for facilitating contact between at least one monoclonal antibody and a feline blood sample; and,

(b) a mixture of a first monoclonal antibody and a second monoclonal antibody placed in contact with said substrate member, whereby each said antibody recognizes at least one feline blood group specific A antigen.

2. The kit of Claim 1 wherein one monoclonal antibody in said mixture recognizes glycolipid A antigen (NeuGc)<sub>2</sub>G<sub>D3</sub>.

3. The kit of Claim 1 wherein one monoclonal antibody in said mixture recognizes glycolipid A antigen comprising (NeuGc)G<sub>T3</sub>, or (NeuGc) containing gangliosides.

4. The kit of Claim 1, wherein said first monoclonal antibody is a 13G3 antibody.

5. The kit of Claim 1 wherein said second monoclonal antibody is 4E10 antibody.

6. The kit of Claim 3 wherein said monoclonal antibody is present in solution at a concentration equal to between 34 µg/ml and 136 µg/ml.

7. The kit of Claim 2 wherein said monoclonal antibody is present in solution at a concentration equal to between 64 µg/ml and 256 µg/ml.

8. The kit of Claim 1 wherein said antibody mixture has been lyophilized.

9. The kit of Claim 1 wherein said substrate member is selected from the group consisting of card members and test tubes.

10. The kit of Claim 1 wherein said kit comprises an agent which agglutinates with blood type B.

11. The kit of Claim 1 wherein said agent is a lectin from *Triticum vulgaris*.

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12. A method for typing feline blood samples comprising:

(a) collecting a blood sample from a feline subject;

(b) dispensing an amount of the blood sample into a substrate member, which facilitates contact between a mixture of a first monoclonal antibody and a second monoclonal antibody, with each said antibody recognizing feline blood group A specific antigens; and,

(c) examining the blood sample and antibody mixture to determine whether the sample agglutinated.

13. The method of Claim 12 wherein between 50  $\mu$ l and 100  $\mu$ l of the blood sample, which is collected in EDTA, from each cat to be typed, is added to said substrate member.

14. The method of Claim 12 wherein one monoclonal antibody in said mixture recognizes glycolipid A antigen (NeuGc)<sub>2</sub>G<sub>D3</sub>.

15. The method of Claim 12 wherein said 13G3 antibody is present in a concentration equal to between 34  $\mu$ g/ml and 136  $\mu$ g/ml.

16. The method of Claim 12 wherein said 4E10 antibody is present in a concentration equal to between 64  $\mu$ g/ml and 256  $\mu$ g/ml.

17. The method of Claim 12 wherein said blood sample is mixed with said antibody mixture in an amount sufficient to observe agglutination.

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18. A method of using monoclonal antibodies to type feline blood, comprising:  
contacting a sample of feline blood with a mixture of murine monoclonal antibodies wherein  
one of said antibodies recognizes glycolipid A antigen (NeuGc)<sub>2</sub>G<sub>D3</sub>, and said other monoclonal  
antibody recognizes glycolipid A antigen (NeuGc)G<sub>T3</sub>, or (NeuGc) containing gangliosides.

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19. An isolated murine monoclonal antibody which specifically binds to a receptor on a erythrocyte glycolipid antigen that characterizes feline type A blood and does not bind to any receptor on an antigen that characterizes feline type B blood.

20. The antibody of Claim 19 wherein said antibody recognizes glycolipid A antigen

5 (NeuGc)<sub>2</sub>G<sub>D3</sub>.

21. The antibody of Claim 19 wherein said antibody recognizes glycolipid A antigen (NeuGc)G<sub>T3</sub>, or (NeuGc) containing gangliosides.

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22. A kit for determining feline blood type, comprising a substrate member for facilitating contact between a monoclonal antibody mixture comprised of two separate monoclonal antibodies and a feline blood sample, said mixture comprised of a first monoclonal antibody which recognizes glycolipid A antigen (NeuGc)<sub>2</sub>G<sub>D3</sub>, and a second monoclonal  
5 antibody which recognizes glycolipid A antigen (NeuGc)G<sub>T3</sub>, or (NeuGc) containing gangliosides, whereby said first antibody is present in a concentration equal to between 64 µg/ml and 256 µl/ml, and said second antibody is present in a concentration equal to between 34 µg/ml and 136 µg/ml.

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